DGDC Meeting Minutes
February 11, 2016

Attendance List:

Roger Barlow ....USGS
Naomi Bates.......................DGS
David Bennett.....................DTI
Mark Biddle ....DNREC
Dave Braig ....JMT
Kim Cloud ....DTI
Dan Cook ....DTI
Roberto DeDeus ....City of Newark
Robert Delach ....Dewberry
Mike DelTufo.....................DTI
Lauren Devore ....DelDOT
Jay Gerner ....DelDOT
Jeremy Gibb......................City of Dover
Lauren Good ....KCI Technologies
James Gregory...................DNREC
Alice Guerrant ....DCHA
Jay Hodny ....Kent County
Matt Jones ....DNREC WSLS
Jimmy Kroon ....DDA
Matthew Laick ....DSHS
Danielle Lamborn ....Kent County
Brian Laws ....City of Newark
Susan Love ....DNREC DEC
Mike Mahaffie....................DNREC
Joel Marshall.....................Sussex County
Mary McColley ....Kent County
Noemi Mendez ....Census
Dorothy Morris...................OSPC
Megan Nehrbas..................Sussex County
Sathya Pendyala ....Pepco
Miriam Pomilio...................OSPC
Mollie Raley-Hall ....DelDOT
Shivaji Sengupta ....DNREC
William Seybold..................DE Forest Service
Rick Sherwood ....DEMA
Olena Smith ....UD
Debbie Sullivan ....DTI/DNREC
Josh Thomas......................DelDOT
Doyle Tiller ....OMD/DFM
Mike Townshend ....DTI
Lillian Wang.......................DGS
Carl Yetter.........................DNREC

Welcome & Introductions

Miriam Pomilio started the meeting at 9:08 am. She welcomed everyone to the meeting and introductions were made.

May 14 and August13, 2015 Meeting Minutes

Roger Barlow made a motion to approve the November 12, 2015 Meeting Minutes (PDF). Olena Smith seconded the motion and it passed unanimously.

FirstMap Update

The DTI FirstMap team reported that many updates are being done. Services are being added as new data is acquired (DGS provided some geologic data, new Hydrology data for HUC's, etc.). The FirstMap team is also working on updating the Base Maps, caching them so they will draw faster, and custom print services. Sign up for the FirstMap updates though the State Notification system; search for FirstMap once you register.

Technical Advisory Committee Update

Mike Townshend reported that there will a meeting in March and he will inform the committee of time and location.

Geospatial Education Committee

Miriam reported that the K-12 contest has been modified this year to be a Map Gallery and extended the entries to college level this year. The Map Gallery will be at the Delmarva Conference coming up in April and attendees will vote for Best in Show for each of the age categories.

Miriam further reported that GIS Day field trip was very successful in November, with just over 250 students attending. It was so popular that we took it on the road. The GIS Day subcommittee visited 3 schools over the past 2 months and provided several GIS activities with just a handful of volunteers. The GIS Day committee will meet again soon and start planning the 2016 event.

Delmarva GIS Conference

Matt Laick reported that the Delmarva GIS Conference will feature a new format this year with Ignite Speakers in the morning and a special after lunch speaker. Registration will be available in late-January 2016. Follow the Delmarva Conference: on their Website ; Twitter (@DelmarvaGIS); and Facebook.

NHD Update

Roger Barlow reported that he is working with Steve Smailer and Matt Jones at DNREC Wetlands group to finalize the MOA for the National Hydrologic Dataset for Delaware.

Presentation – DNREC Flood Risk Adaptation Mapping (FRAM)

Susan Love, of the DNREC Division of Energy and Climate, presented information regarding the FRAM process and maps.

Presentation – Dewberry – Humanitarian OpenStreetMap Team (HOT)

Robert Delach from Dewberry presented information about a crowdsourcing opportunity to assist in mapping during and after disasters. A copy of his presentation can be accessed through Prezi.

Federal Update

USGS – Roger reported that the State has taken delivery of the most recent LiDAR data. He also mentioned that the NAIP imagery is now available for Delaware.

Academia Update

Olena Smith, from UD indicated that they have rolled out updated UD Campus Maps and are utilizing ArcGIS Online. There are some Esri internships opening up that might be of interest for college students. Olena encouraged folks to follow the UD GIS group on Twitter @UDelGIS

Open Comment Period

Bill Seybold (DE Forest Service) discussed a project being undertaken by NASA, the Carbon Monitoring System (CMS), and indicated they are reaching out to several agencies looking for input. There will be a conference call scheduled soon.

Roberto DeDeus (City of Newark) shared they are working on Discharge maps for stormwater and working on implementing Network Trace on the systems.

Alice Guerrant (DHCA) announced that they will be doing some updates to the CHRIS system including new tools. Look for these updates.

Next Meeting

The next DGDC Quarterly meeting will be May 12, 2016.

Adjournment

Haslet Armory
122 Martin Luther King Jr. Blvd. South
Dover, DE 19901

stateplanning.delaware.gov/dgdc
twitter.com/DelawareGIS
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Roger Barlow made a motion to adjourn the meeting and it was seconded by Bill Seybold. The meeting was adjourned at 11:22 am.

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122 Martin Luther King Jr. Blvd. South
Dover, DE 19901

stateplanning.delaware.gov/dgdc
twitter.com/DelawareGIS
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MINIMIZING FLOOD DAMAGE TO STATE ASSETS IN THE 21ST CENTURY

Delaware's Flood Risk Adaptation Map (FRAM)
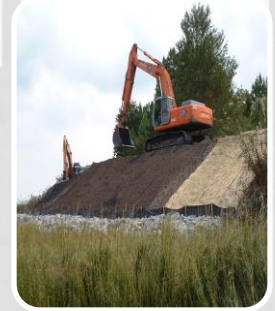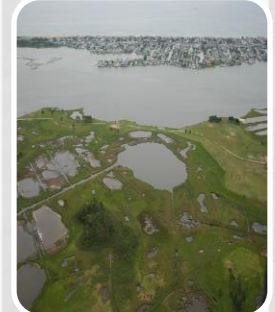
CLIMATE IMPACTS IN DELAWARE

Increasing Temps

Heavy Precipitation

Sea Level Rise

EXECUTIVE ORDER 41 PREPARES THE STATE FOR CLIMATE IMPACTS

- Requires State Agencies to:
  - Develop policies and plans
    - GHG Emission Reductions
    - Agency Adaptation recommendations
  - Take on-the-ground action
    - Avoid new projects in flood prone areas
    - Plan for future flood levels in projects
    - Use green infrastructure where possible

FLOOD AVOIDANCE WORKGROUP MEMBERSHIP

- DelDOT
  - Bridge Design
  - Transportation Solutions
- DNREC
  - Energy & Climate
  - Coastal
  - Financial Assistance Branch
  - Watershed Stewardship
  - Parks & Rec

- OMB
  - Facilities Management
  - Financial Operations
- Office of State Planning Coordination
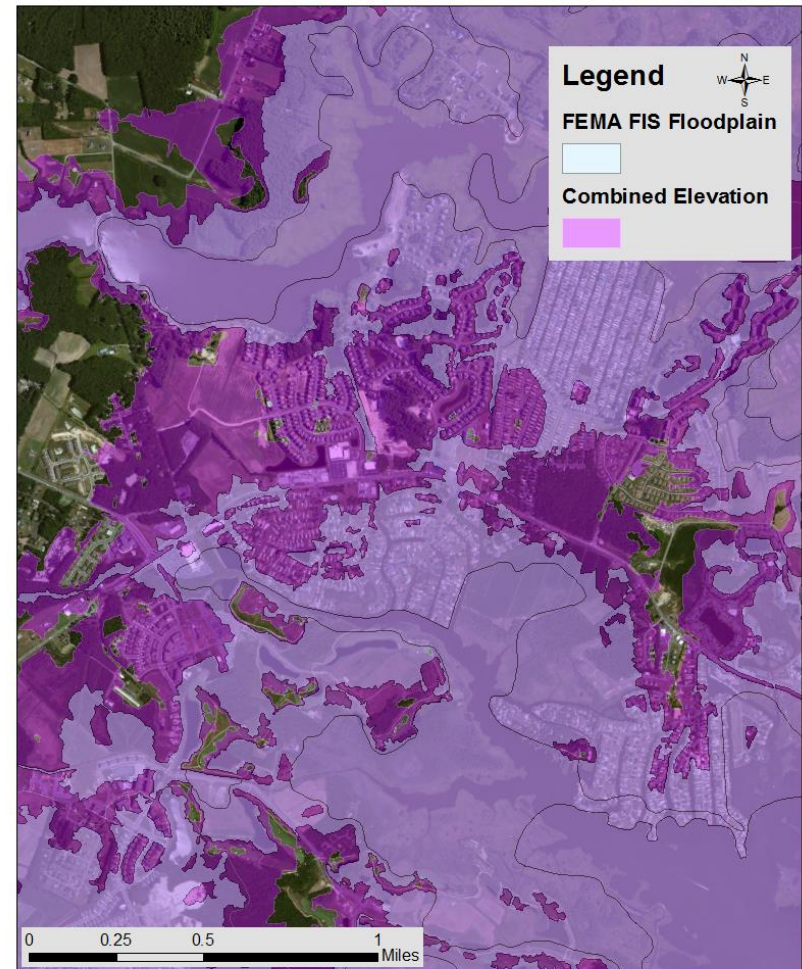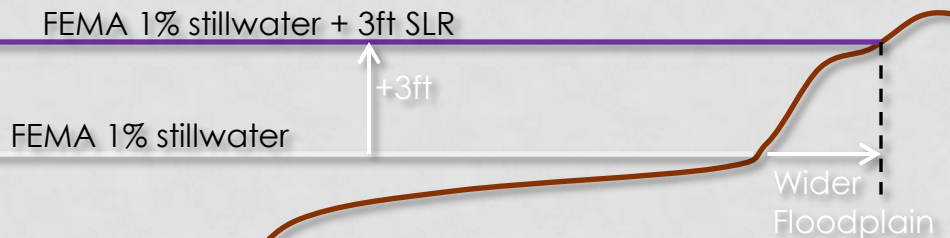- Department of Education
- State Housing Authority

FLOOD AVOIDANCE WORKGROUP PRODUCTS

- *Avoid Projects in flood prone areas:*
  - **Flood Avoidance and Design Guidance**
- *Use Green Infrastructure*
  - **Green Infrastructure Primer**
- *Plan for future flood levels*
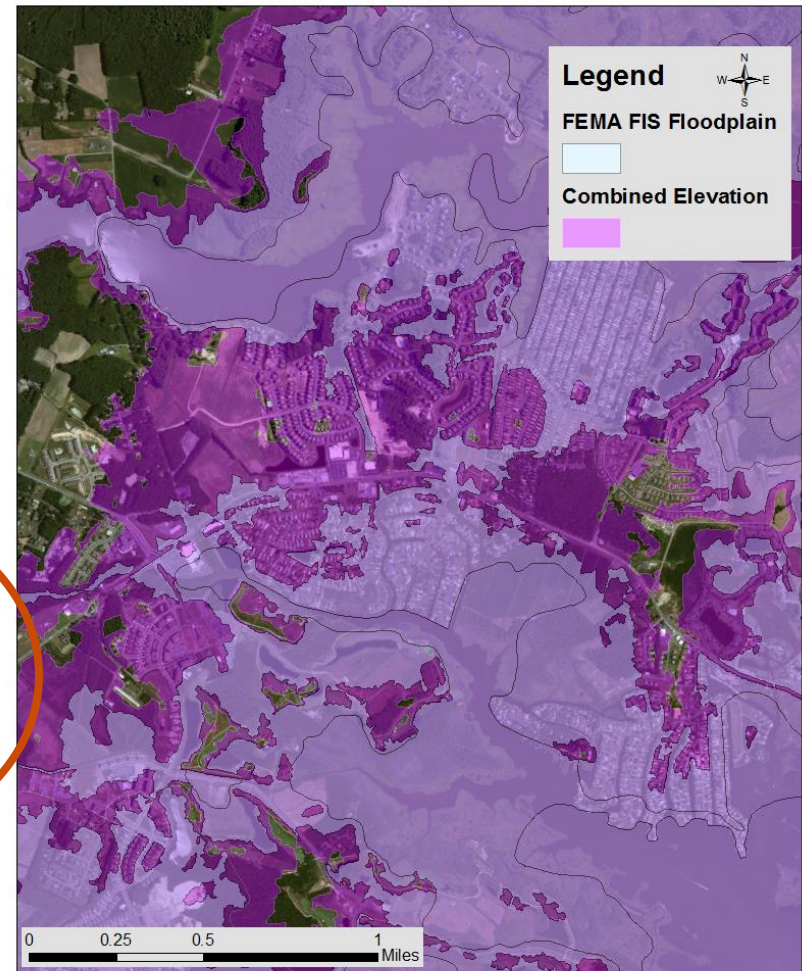 - **Flood Risk Adaptation Map (FRAM)**
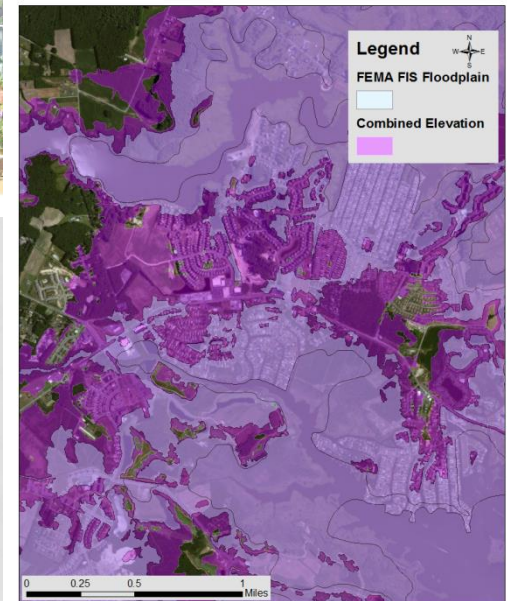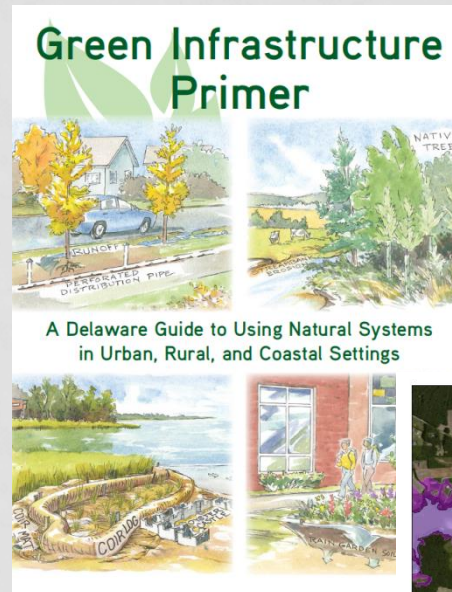
Green Infrastructure Primer

A Delaware Guide to Using Natural Systems in Urban, Rural, and Coastal Settings

Legend
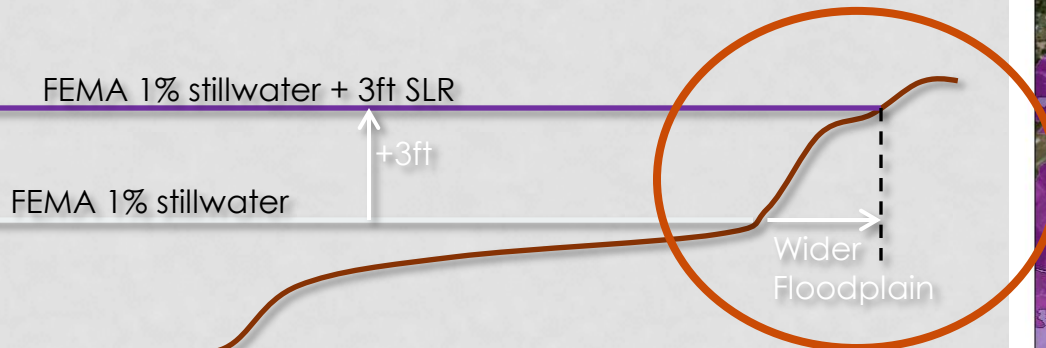FEMA FIS Floodplain
Combined Elevation

FLOOD RISK ADAPTATION MAPS (FRAM)

- Is one of several tools that state agencies will use to assess their current and future flood risk

- *Depicts the 1% chance floodplain assuming 3' of sea level rise*
  - *Many caveats…*

- *Developed thru EO 41 for state agencies*
  - *Can be used by anyone assessing risk*

FEMA 1% stillwater + 3ft SLR

+3ft

FEMA 1% stillwater

Wider Floodplain

Legend

FEMA FIS Floodplain

Combined Elevation

0   0.25   0.5   1
Miles

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FEMA 1% stillwater

Wider
Floodplain

Legend

FEMA FIS Floodplain

Combined Elevation

0   0.25   0.5   1
Miles

FRAM: LARGER FLOODPLAIN, HIGHER FLOOD ELEVATIONS/FLOOD DEPTH AND DIFFERENT ZONE DESIGNATIONS
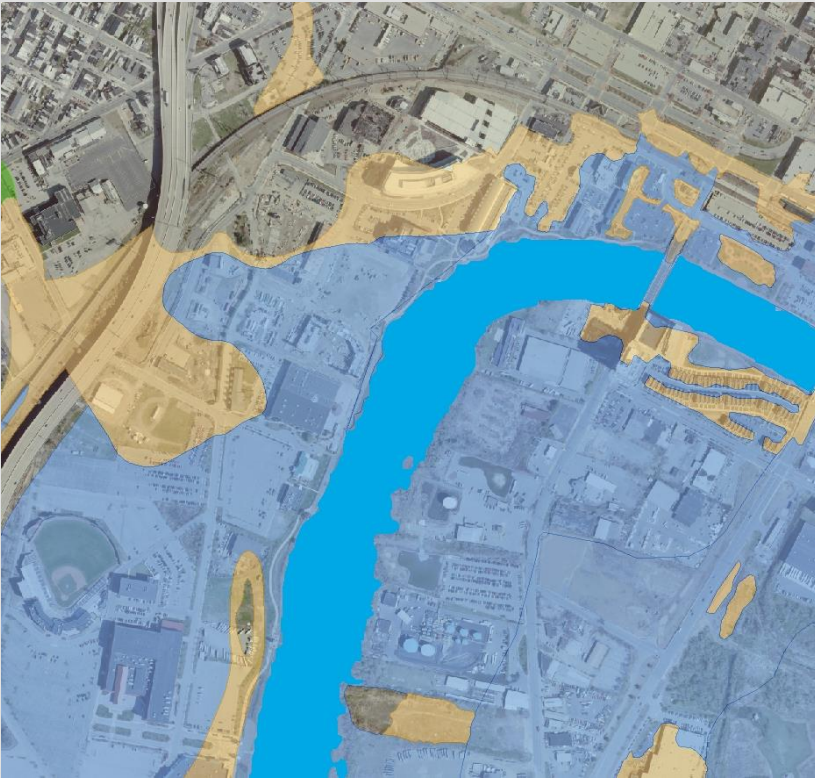

FEMA FIS map

FRAM

LIMITATIONS OF FRAM

- Greater **wave action** further inland due to increased flood depths not modelled

- More **severe erosion** due to sea level rise and greater waves action not studied

- **Human management** actions not accounted for

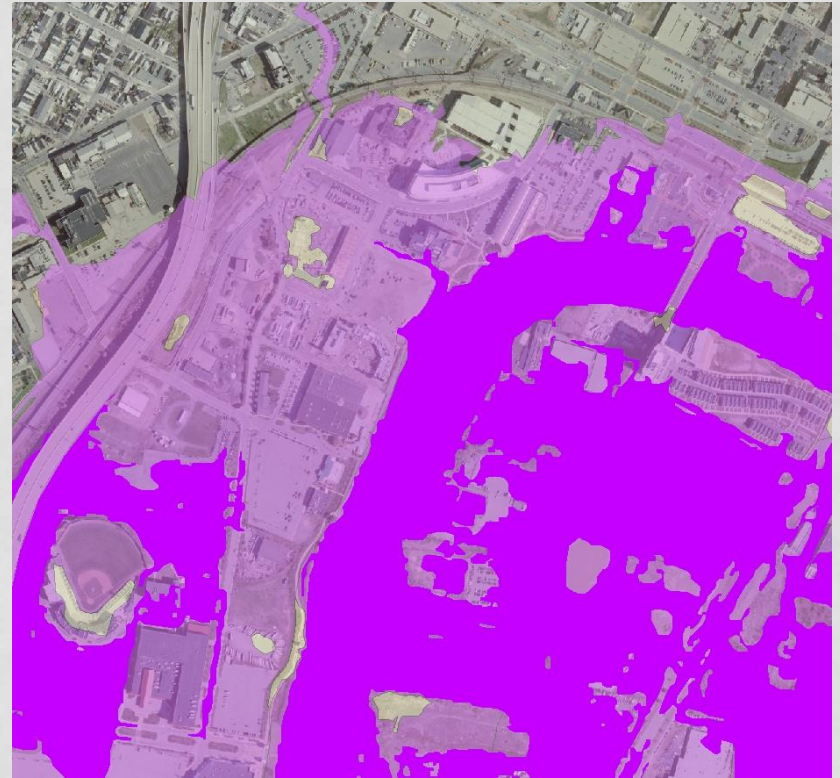- Long-term **shoreline changes** not accounted for

WILMINGTON'S RIVERFRONT
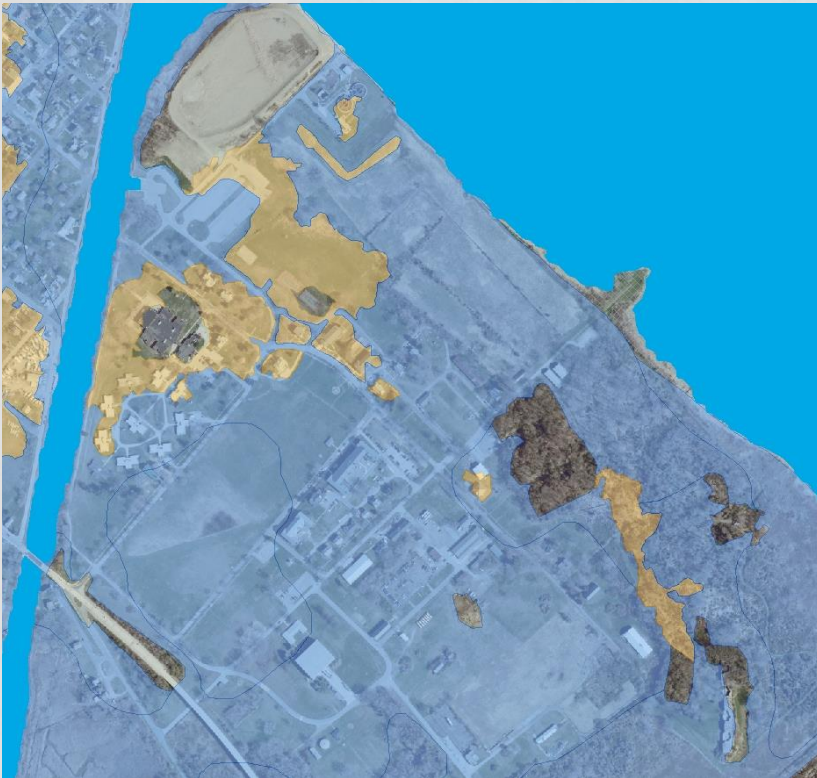
**MHHW and Floodplain
Today**

**MHHW and Floodplain
3' Sea Level Rise**

FORT DUPONT, DELAWARE CITY
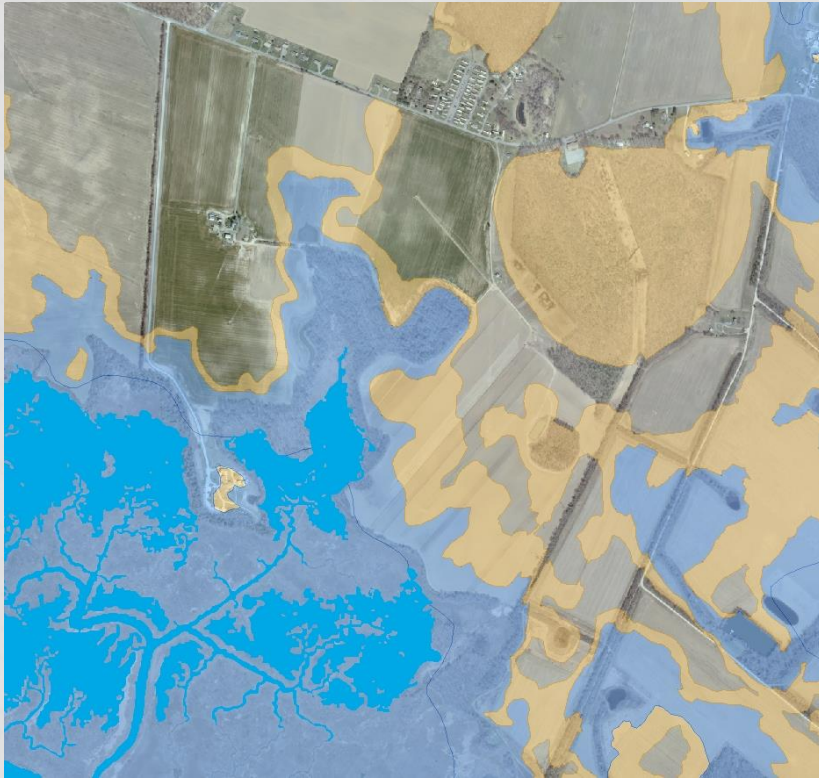
**MHHW and Floodplain
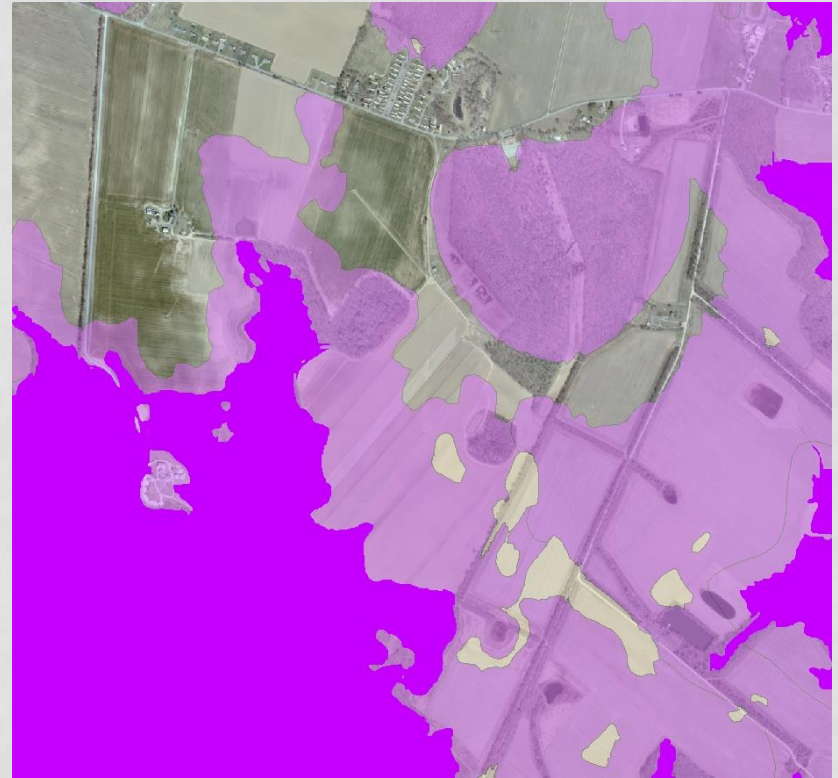Today**

**MHHW and Floodplain
3' Sea Level Rise**

ST. JONES RESERVE AND VICINITY

**MHHW and Floodplain
Today**

**MHHW and Floodplain
3' Sea Level Rise**

WOW, WHAT AN AMAZING MAP! WHERE CAN I GET IT?

- GIS layers available on First Map to state users
  - Including metadata and technical companion
  - Available for public upon request
- Web/map application for state agencies in future

Delaware Flood Risk Adaptation Map: Methods, Assumptions and Limitations

February 2015

URS

12420 Milestone Center Drive, Suite 150
Germantown, MD

BUT WAIT, THERE'S MORE

Avoiding and Minimizing Flood Damage to State Assets: A Guide…

- To be final in March
- Targets structures and infrastructure
- Principles for flood avoidance
- Step-by-step instructions
- Mapping information

Understand Risk

Avoid Flood Prone Sites

Design to decrease risk of damage

Use Green Infrastructure

Document decisions

QUESTIONS?

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